The Collection 5 MODIS aerosol optical depth

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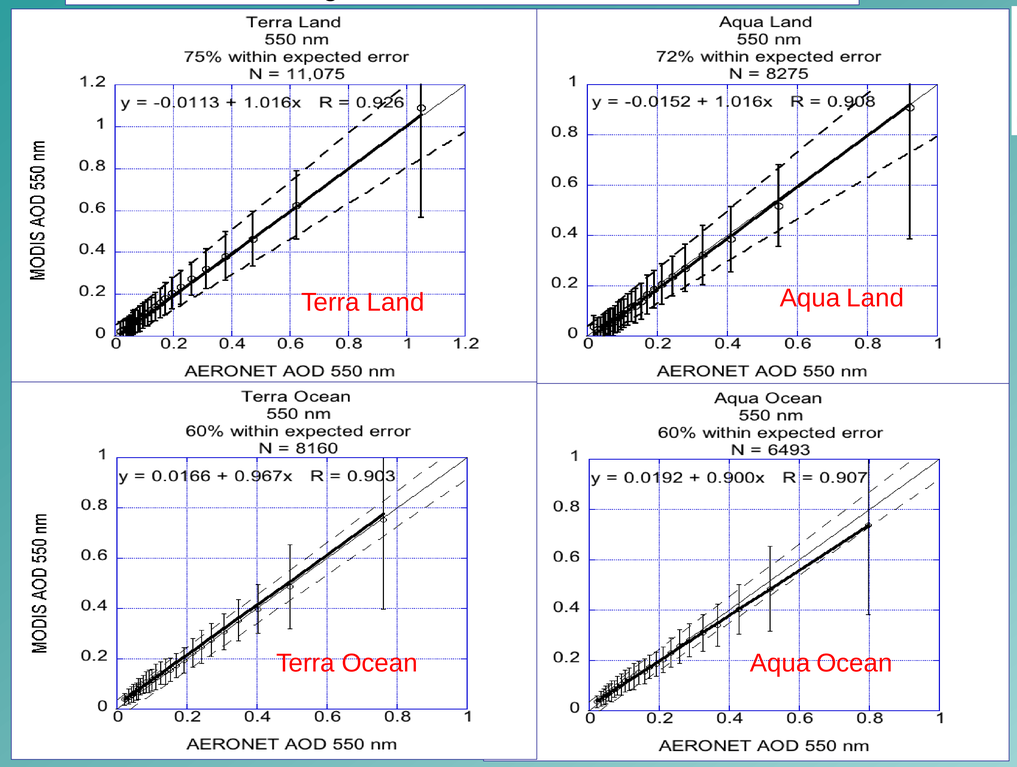
AOT550 validated against collocated AERONET observations



AOD 550 is meeting expectations over land and ocean, Aqua and Terra.
Land AOD product significantly better in Collection 5 than Collection 4.

High FMF fraction
In N. Midlatitude
During JJA
(pollution transport)

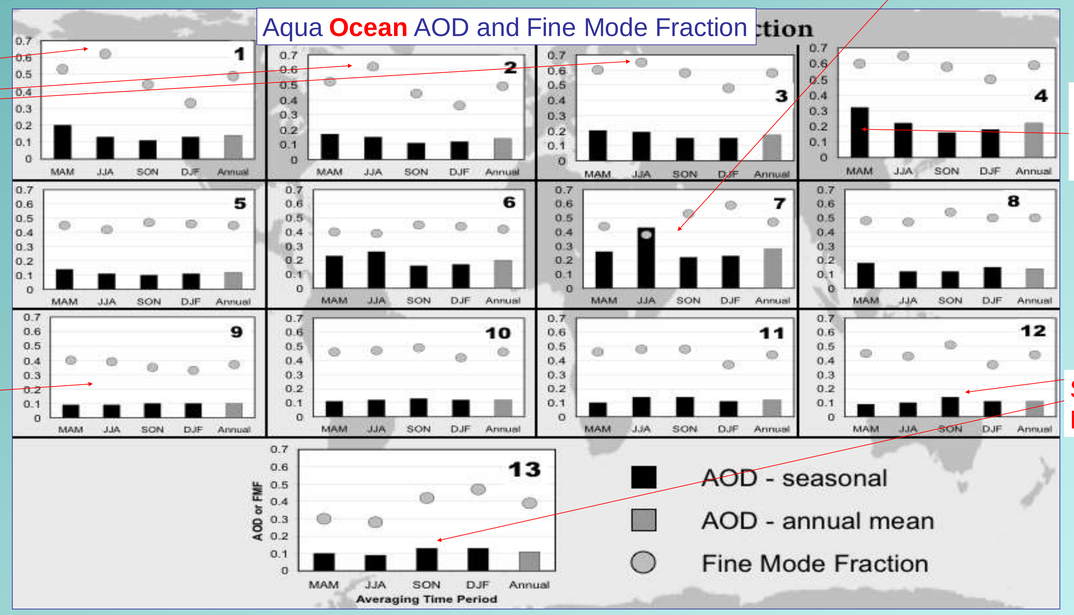
Aqua **Ocean** AOD and Fine Mode Fraction

Highest seasonal mean AOD
in the Arabian Sea in JJA with
Depressed FMF suggests dust

High AOD in
NW Pacific
In MAM

Lowest AOD
In E tropical
Pacific

SH AOD
Max in SON

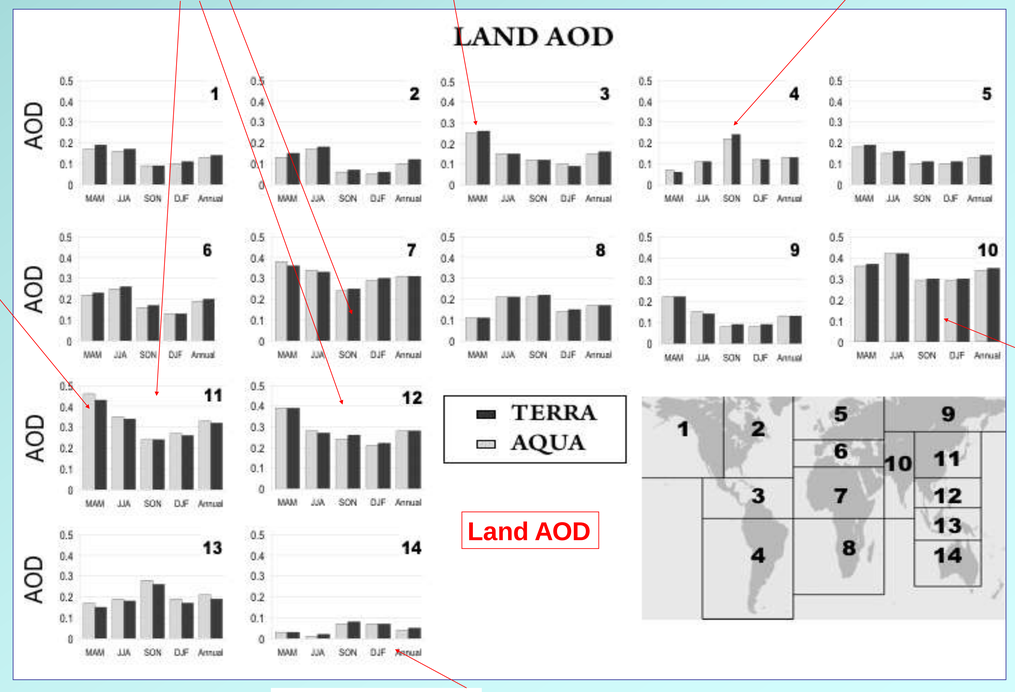


N. Africa, E. Asia have
Highest AOD and similar
Seasonal cycle

Central Amer biomass
burning peaks in MAM

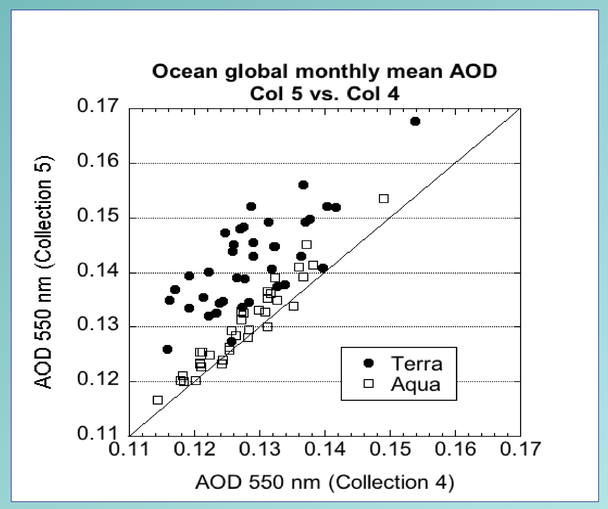
S. Amer. biomass burning
peaks in SON

Highest land AOD
In E. Asia in MAM



India, like
E.Asia has
high AOD
but JJA peak

Lowest land AOD
In Austral.



Over ocean, Aqua Collection 5
global and regional mean AODs
are approximately the same as for
Collection 4.
However, for Terra mean AOD
over ocean is now higher than
it was for Collection 4.
There is now a 0.015 offset between
Terra and Aqua ocean retrievals,
which is due to offsets in L1B
reflectances between the two
Instruments. We suspect the
L1B offset follow from changes made to
Collection 5 calibration coefficients.